

Amendments to the Claims:

This listing of claims replaces all prior listings, and versions, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of controlling the transmit power of a forward link preamble signal sent between a base station and a mobile device in a communications network, said method comprising:
 - sending a first signal from the basestation to the mobile device prior to sending said preamble signal, said first signal having a first signal transmit power;
 - receiving said first signal at the mobile device prior to receiving said preamble signal;
 - measuring said first signal for a received signal to noise ratio at the mobile device;
 - sending a second signal from the mobile device to the basestation, said second signal containing information about said received signal to noise ratio, and further containing a desired preamble signal component signal-to-noise-ratio value desired by the mobile device, wherein the desired preamble signal is based on signal processing capabilities of the mobile device, to optimize a network performance criteria based upon current network conditions including at least one of interference, fading, and unbalanced RF, radio frequency, links; and
 - setting the transmit power of the forward link preamble signal based on said received signal to noise ratio information, said first signal transmit power and said desired preamble signal component signal-to-noise-ratio value to optimize the network performance criteria based upon the current network conditions including the at least one of interference, fading, and unbalanced RF, radio frequency, links, the setting step including:
 - estimating a signal component value based on said received signal to noise ratio;

- calculating a mathematical difference of the desired preamble signal component signal-to-noise-ratio value and said estimated signal component value and adding to the difference an offset, wherein the offset includes an offset for at least one of an estimation error for the estimating the value of a signal component and channel condition changes since the mobile device transmit information about said received signal to noise ratio; and
- assigning the transmit power of said forward link preamble signal to a value obtained by offsetting said first signal transmit power by the difference found in said calculation step,

wherein the forward link preamble signal is sent during the traffic channel initialization period in a CDMA network.

2. (Cancelled)
3. (Cancelled)
4. (Original) The method of claim 1, wherein said first signal is a pilot signal.
5. (Original) The method of claim 1, wherein the step of sending said second signal is performed over an access channel in the communications network.
6. (Cancelled)
7. (Previously Presented) The method of claim 1, wherein the transmit power assigned to said forward link preamble signal is assigned independently of the basestation's transmission data rate.
8. (Cancelled)

9. (Previously presented) The method of claim 1, wherein the desired preamble signal component value is limited by a threshold value, whereby if said value based on said mobile device exceeds said threshold value, said desired preamble signal component value is set to said threshold value.
10. (Previously presented) The method of claim 1, wherein the desired preamble signal component value is selected from a predetermined value at said basestation and a value received from said mobile device.
11. (Original) The method of claim 10, wherein said selecting is performed based on the higher value between said predetermined value at said basestation and said value received from said mobile device.
12. (Original) The method of claim 11, wherein said selecting is limited by a threshold value, whereby if said value received from said mobile device exceeds said threshold value, said selecting step uses said threshold value.
13. (Cancelled)
14. (Currently Amended) The method of claim ~~13~~ 1, wherein said offset is between 0 and 6 dB.
15. (Original) The method of claim 1, wherein said estimated signal component value is an estimated E_c/I_o value of said first signal.
16. (Original) The method of claim 1, wherein said communications network is a CDMA network.

17. (Currently Amended) A system for controlling transmit power of a forward link preamble signal in a communications network, said system comprising:
- a mobile device, said mobile device adapted to:
 - receive a first signal from a basestation prior to receiving said preamble signal;
 - evaluate a signal to noise ratio of said first signal;
 - transmit information about said received signal to noise ratio to said basestation;
 - transmit a desired preamble signal component signal-to-noise-ratio value desired by the mobile device device, wherein the desired preamble signal is based on signal processing capabilities of the mobile device, to optimize a network performance criteria based upon current network conditions including at least one of interference, fading, and unbalanced, RF, Radio Frequency, links; and
 - a basestation, said basestation being adapted to:
 - send said first signal with a first signal transmit power prior to transmitting the preamble signal;
 - receive said information about the mobile device received signal to noise ratio and the desired preamble signal component signal-to-noise-ratio value from said mobile device; and
 - set the transmit power of said forward link preamble signal based on said information about said received signal to noise ratio, said desired preamble signal component signal-to-noise-ratio value to optimize the network performance criteria based upon the current network conditions including the at least one of interference, fading, and unbalanced RF, radio frequency, links and said first signal transmit power, said setting of the transmit power in said basestation including:
 - estimating a value of a signal component of said first signal based on said information about the received signal to noise ratio; and

- setting the transmit power of said forward link preamble signal by adding the difference between the desired preamble signal component signal-to-noise-ratio value and the estimated signal component value to the first signal transmit power and an offset, wherein the offset includes an offset for at least one of an estimation error for the estimating the value of a signal component and channel condition changes since the mobile device transmit information about said received signal to noise ratio; and

wherein the forward link preamble signal is sent during the traffic channel initialization period in a CDMA network.

18. (Original) The system of claim 17, wherein said first signal is a pilot signal.
19. (Original) The system of claim 17, wherein said transmitting of information from said mobile device is performed over an access channel.
20. (Previously Presented) The system of claim 17, wherein said preamble is sent on a traffic channel sent from said basestation to said mobile device.
21. (Cancelled)
22. (Original) The system of claim 17 wherein said evaluating of said first signal in said mobile device is performed on a first signal component.
23. (Original) The system of claim 22, wherein the first signal component is the E_c/I_o of the first signal.
24. (Cancelled)

25. (Cancelled)
26. (Cancelled)
27. (Previously presented) The system of claim 17, wherein the desired preamble signal component value is limited by a threshold value, whereby if said value based on said mobile device exceeds said threshold value, said desired preamble signal component value is set to said threshold value.
28. (Previously presented) The system of claim 17, wherein the desired preamble signal component value is selected from a predetermined value at said basestation and the value received from said mobile device.
29. (Original) The system of claim 28, wherein said selecting is performed based on the higher value between said predetermined value at said basestation and said value received from said mobile device.
30. (Original) The system of claim 29, wherein said selecting is limited by a threshold value, whereby if said value received from said mobile device exceeds said threshold value, said selecting step uses said threshold value.
31. (Cancelled)
32. (Currently Amended) The system of claim ~~34~~ 1, wherein the value of the offset parameter is between 0 and 6 dB.
33. (Not Entered)

34. (Not Entered)

35. (Canceled)

36. (Currently Amended) A base station for a CDMA communications network, said base station comprising:

- a transmitter; and
- a receiver operatively coupled to the transmitter;
- wherein said transmitter is adapted to transmit a first signal at a first transmit power level;
- wherein said receiver is adapted to receive a second signal sent back from a mobile device, said second signal received from the mobile device containing information that represents a signal to noise ratio of said first signal received by said mobile device, the receiver being further adapted to receive a desired preamble signal component signal-to-noise-ratio value desired by the mobile device, wherein the desired preamble signal is based on signal processing capabilities of the mobile device, to optimize a network performance criteria based upon current network conditions including at least one of interference, fading, and unbalanced RF, radio frequency, links;
- wherein after said base station receives said signal to noise ratio and said desired preamble signal component signal-to-noise-ratio value to optimize the network performance criteria based upon the current network conditions including at least one of interference, fading, and unbalanced RF, radio frequency, links, said base station sets the transmitter transmit power of said forward link preamble signal by the steps of:
 - estimating a value of a signal component of said first signal based on information about the received signal to noise ratio; and

- adding or subtracting a difference between the desired preamble signal component signal-ratio-to-noise value and the estimated signal component value and adding the difference to an offset, wherein the offset includes an offset for at least one of an estimation error for the estimating the value of a signal component and channel condition changes since the mobile device transmit information about said received signal to noise ratio, and to the first signal transmit power, said transmitter setting the transmit power of the forward link preamble signal independently of a transmission rate of the basestation.

37. (Currently Amended) A mobile device for a CDMA communications network, said mobile device comprising:

- a transmitter; and
- a receiver operatively coupled to the transmitter;
- wherein said receiver is adapted to receive a first signal sent by a base station at a first power level, the base station transmitting the first signal prior to transmitting a forward link preamble signal;
- wherein said mobile device transmitter sends a second signal back to the base station, said second signal sent back to the base station containing information that represents a signal to noise ratio of said first signal received by the receiver of said mobile device, the second signal sent back to the base station further including a desired preamble signal component signal-to-noise-ratio value desired by the mobile device, wherein the desired preamble signal is based on signal processing capabilities of the mobile device, to optimize a network performance criteria based upon current network conditions including at least one of interference, fading, and unbalanced RF, radio frequency, links;
- wherein the second signal sent back to the base station causes the base station to set a transmitter transmit power of said forward link preamble signal by the steps of:

- estimating a value of a signal component of said first signal based on information about the received signal to noise ratio; and
- adding or subtracting the difference between the desired preamble signal component signal-to-noise-ratio value to optimize the network performance criteria based upon the current network conditions including at least one of interference, fading, and unbalanced RF, radio frequency, links and the estimated signal component value, and adding the difference to an offset, wherein the offset includes an offset for at least one of an estimation error for the estimating the value of a signal component and channel condition changes since the mobile device transmit information about said received signal to noise ratio, and to the first signal transmit power, said transmitter setting the transmit power of the forward link preamble signal independently of a transmission rate of the base station.